

Date: Mon, 24 May 93 12:40:00 PDT  
From: Info-Hams Mailing List and Newsgroup <info-hams@ucsd.edu>  
Errors-To: Info-Hams-Errors@UCSD.Edu  
Reply-To: Info-Hams@UCSD.Edu  
Precedence: Bulk  
Subject: Info-Hams Digest V93 #634  
To: Info-Hams

Info-Hams Digest                      Mon, 24 May 93                      Volume 93 : Issue    634

Today's Topics:

    2m on Airlines ( hopefully end of thread :- )  
        An interesting New-Ham story  
        Antenna questions  
            G5RV  
        Help on my IC 2sat  
        Help with Address  
        Icom 735 help?  
    Kenwood TM-742A w/ 220Mhz Unit - Questions (2 msgs)  
    Quagi antenna polarization question  
    Radio Shack 70cm HT? (2 msgs)  
    REAL Mods for the HTX-202  
    Wanted: Kenwood AT-300 Schematic

Send Replies or notes for publication to: <Info-Hams@UCSD.Edu>  
Send subscription requests to: <Info-Hams-REQUEST@UCSD.Edu>  
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Info-Hams Digest are available  
(by FTP only) from UCSD.Edu in directory "mailarchives/info-hams".

We trust that readers are intelligent enough to realize that all text  
herein consists of personal comments and does not represent the official  
policies or positions of any party. Your mileage may vary. So there.

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Date: 24 May 93 18:19:02 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: 2m on Airlines ( hopefully end of thread :- )  
To: info-hams@ucsd.edu

After reading this thread and seeing many people type the facts of  
what is and is not legal, I decided to go the books and find what  
the FAA has put in writing. After a lengthy search the only reference I  
find is in the Federal Aviation Regulations part 91 under 91.19  
titled Portable Electronic Devices. The following is the text straight  
from the book ( with the exception of any typo's )

(a) Except as provided in paragraph (b) of this section, no person may operate, nor may any operator or pilot in command of an aircraft allow the operation of, any portable electronic device on any of the following U.S. registered civil aircraft:

(1) Aircraft operated by an air carrier or commercial operator; or

(2) Any other aircraft while it is operated under IFR

(b) Paragraph (a) of this section does not apply to:

(1) Portable voice recorders;

(2) Hearing aids;

(3) Heart pacemakers;

(4) Electric Shavers; or

(5) Any other portable device that the operator of the aircraft has determined will not cause interference with the navigation or communication systems of the aircraft on which it is to be used.

(c) In the case of an aircraft operated by an air carrier or commercial operator, the determination required by paragraph (b) (5) of this section shall be made by the air carrier or commercial operator of the aircraft on which the particular device is to be used. In the case of other aircraft, the determination may be made by the pilot in command or other operator of the aircraft.

[amdt. 91-35, 31 FR 15318, Dec 7, 1966]

-- the above was taken out of a 1990 copy of the FAR. I think this says it all

73

Clay

Clayton DeCosterd

INTERNET : clay @ drone.hazeltine.com

COMPUSERVE: 71754,447

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Date: 24 May 93 19:11:58 GMT

From: news-mail-gateway@ucsd.edu

Subject: An interesting New-Ham story

To: info-hams@ucsd.edu

In Info-Hams Digest V93 #620, Rajiv, AA9CH, writes about a friend who was involved in a medical assist via Amateur Radio in which a spinal injury was diagnosed and treated by on scene personnel with instructions provided over CW.

Rajiv, I appreciate your friends modesty but he would serve the

Amateur community more by allowing the press to write the story up and distribute it as another success story of Amateur Radio providing a vital lifesaving service in the pinch. In any case, thanks for sharing it with us.

Fred, WH6ME, 4311@CPF.NAVY.MIL

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Date: Mon, 24 May 1993 17:03:56 GMT  
From: usc!howland.reston.ans.net!sol.ctr.columbia.edu!hamblin.math.byu.edu!news.byu.edu!ns.novell.com!jmessaging.NSD.Provo.Novell.COM!JMESSING@network.UCSD.EDU  
Subject: Antenna questions  
To: info-hams@ucsd.edu

The other day I heard of a local club making an antenna they called a "walking stick". Does anyone know what type of antenna this is and what frequency bands it is used for? If anyone has a diagram of what it is and would like to share it I would be grateful to know what this is.

Thanks in advance. Always learning.

Jeff M.

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Jeff Messinger  
Internet: Jmessaging@novell.com  
Disclaimer: The opinions expressed here are solely mine.  
              Besides who else would want to claim them.

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Date: Mon, 24 May 1993 19:47:22 GMT  
From: pa.dec.com!nntpd2.cxo.dec.com!nuts2u.enet.dec.com!little@decwrl.dec.com  
Subject: G5RV  
To: info-hams@ucsd.edu

sbaker@umassmed.UMMED.EDU (Stephen Baker) writes:

>Hopefully if you've been following the g5rv thread you'll have noticed that  
>there's a bunch of hams who swear by them, and a bunch of "theoreticians"  
>who describe why it shouldn't work. I'm still waiting for the guy who says that  
>he used to use one, had good luck but switched to \_\_\_\_\_ which resulted in  
>\_\_\_ times more contacts on every band.  
>  
>The problem is that any other antenna will have it's own share of problems and  
>limitations, in terms of cost, band restrictions, harmonics, loss etc. The G5RV  
>works, it works on a lot of bands and is inexpensive. I've "worked the

>world" with mine and for what I payed for it, it was the best value in my shack.

That's great! Use whatever works for you.

I think the reason the antenna is being debated is because of the myths that surround the antenna, just like there are so many myths about SWR in general. G5RV himself and the "theoreticians" simply state that you need to use a conjugate match with the G5RV antenna on most bands except 20 and 12 meters. If you're getting a low SWR indication across the bands without a tuner, something is probably amiss in your antenna system. I suspect the myth is due to earlier publications claiming that the G5RV provided a good match across the bands. As I stated before, in 1946 when G5RV came up with the design, any SWR under 5:1 (probably even higher) was acceptable as the PI network in a rig's final provided the necessary conjugate match. Later solid state rigs without a tuner have no such matching circuitry and fold back power when SWR gets above 2:1. Thus an antenna that used to provide all band coverage appears to no longer provide that same capability.

Also, low SWR (or SWR in general) is *\*not\** a very good indicator of antenna system performance. You hear endless debates on the air about striving for that magical 1:1 match, ensuring that you adjust your antenna for lowest SWR, worrying about an antenna's 2:1 SWR bandwidth, etc. Those are meaningful only if you have no means of matching the 50 ohm generator to the non-50 ohm load. Otherwise higher SWRs are not that big of a deal and not worth fussing about. What should be more of a concern is much lower than expected SWR as it probably an indication something else is wrong.

Pick up Maxwell's Reflections. It's a great book and debunks a great many antenna and feed line myths.

73,  
Todd  
N9MWB

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Date: 24 May 1993 18:13:36 GMT  
From: usc!sol.ctr.columbia.edu!hamblin.math.byu.edu!usenet@network.UCSD.EDU  
Subject: Help on my IC 2sat  
To: info-hams@ucsd.edu

I got a used one from someone on this Net. IT does not matter who s/he is. Now it seems to me my problem now...  
As I received it, I notice something wrong with the rig, so I sent it to ICOM. It got a better, it is still something wrong with it.

It seems to have poor sensitivity on that compare with 24at... Is that normal???

could someone help me??

thnx  
tatsuya

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Date: 24 May 93 17:30:56 GMT  
From: news-mail-gateway@ucsd.edu  
Subject: Help with Address  
To: info-hams@ucsd.edu

Would someone be so kind as to look up ZL2AOC for me?  
I don't have access to an international callbook and I really want to QSL this contact.

Thanks,  
Dave Mensing, N2PSH  
mensing.roch817@xerox.com  
work: 716-383-7947  
home: 716-392-9113

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Date: Mon, 24 May 1993 13:47:25 GMT  
From: usc!howland.reston.ans.net!darwin.sura.net!emory!rsiatl!ke4zv!gary@network.UCSD.EDU  
Subject: Icom 735 help?  
To: info-hams@ucsd.edu

In article <wier-230593211435@csci-wiermac.etsu.edu> wier@merlin.etsu.edu (Bob Wier) writes:

>  
>All the other bands work ok as far as I can  
>tell. Can anyone tell me if there MIGHT  
>be a fuse or something which might be blown  
>and thus would be fixable myself? I suspect  
>that just one set of modules isn't working since  
>the rig is not working from 22 Mhz upward, which  
>is where you hear an internal relay click as you  
>tune on up from 15 meters...unfortunately in looking  
>around the schematic, I don't see anything that  
>looks like a fuse (sigh)...

Bob, the "fuse" is almost certainly the driver IC section for the relay switch for that bank of filters. A quick check of the schematic leads me to IC10 on the PL board. This is the BA618 that supplies the drive to the bank switching for transmit and receive. Fortunately this is a 16 pin DIP line buffer and not surface mount. Pin 16 is the 10 meter input from the microprocessor, and pin 1 is the output drive to the 10 meter filter bank. A voltmeter should confirm whether this bit is toggling when you switch banks. This chip is capable of sinking 100 ma per pin.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

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Date: Mon, 24 May 1993 15:41:42 GMT  
From: swrinde!cs.utexas.edu!hermes.chpc.utexas.edu!news.utdallas.edu!corpgate!  
crchh327!crchh7b0!debaker@network.UCSD.EDU  
Subject: Kenwood TM-742A w/ 220Mhz Unit - Questions  
To: info-hams@ucsd.edu

I was wondering if anyone has tried the TM-742A with the 220 unit, as I am seeing some things happen that I didn't expect. First of all, the reception seems very poor. In comparison to 2m or 440, it really doesn't seem to receive well, although transmission seems to get through fine. Another problem I have encountered is whenever I transmit on 220, the 2m band picks up garbage from a level of about S-2 to S-5, depending on the power setting. The other two bands do not cause problems like that to either of the other bands. I am using a dual band antenna for 2m/440 and a monoband for 220.

When Checking SWR & power output on 220, is it valid to use a meter like Radio Shacks 144/440? It seems to give an accurate reading for SWR, but power readings are definately out of line.

Also, does anyone have information about mods and undocumented features for the TM-742A???

All help appreciated,

Please post responses here or email to debaker@bnr.ca

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Date: 24 May 1993 14:28:05 -0400  
From: umcc!not-for-mail@uunet.uu.net  
Subject: Kenwood TM-742A w/ 220Mhz Unit - Questions  
To: info-hams@ucsd.edu

In article <C7JFLJ.J6A@news.rich.bnr.ca> debaker@bnr.ca (David Baker) writes:  
>

>I was wondering if anyone has tried the TM-742A with the 220 unit, as I  
>am seeing some things happen that I didn't expect. First of all, the

I've had a 742A with 220MHz in my car for a few months now. I use a  
2m/220 antenna on the roof, and a 440MHz antenna on the rear bumper, + HF &  
a scanner.

>reception seems very poor. In comparison to 2m or 440, it really doesn't  
>seem to receive well, although transmission seems to get through fine.

I don't have that problem at all.

>Another problem I have encountered is whenever I transmit on 220,  
>the 2m band picks up garbage from a level of about S-2 to S-5, depending  
>on the power setting. The other two bands do not cause problems like

Have you tried to put more distance between the two antennas? The  
base of my 2m/220 antenna is about 4' higher than the base of my 440MHz  
antenna, and they're about 7' apart. The tips of both are about the same  
height.

>When Checking SWR & power output on 220, is it valid to use a meter like  
>Radio Shacks 144/440? It seems to give an accurate reading for SWR, but  
>power readings are definately out of line.

Do you assume it gives an accurate SWR reading on 220 because you  
like the indicated SWR, or have you verified it using a meter calibrated for  
220MHz? I'd think that Radio Shack would love to advertise it as a  
tri-band meter, but since they don't, I'd assume it is only accurate for  
2m/440 (I have that same meter, but haven't tried it on 220MHz).

>

>Also, does anyone have information about mods and undocumented features  
>for the TM-742A???

I've finally seen some mod info out, but don't have an electronic  
copy. I suggest you look for it on packet, &/or search some FTP'able

database files.

--

Tim Tyler            Internet: tim@ais.org   MCI Mail: 442-5735   GEnie: T.Tyler5  
P.O. Box 443        C\$erve: 72571,1005   DDN: Tyler@Dockmaster.ncsc.mil  
Ypsilanti MI        Packet: KA8VIR @WB8ZPN.#SEMI.MI.USA.NA  
48197

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Date: Mon, 24 May 1993 13:50:20 GMT  
From: swrinde!emory!rsiatl!ke4zv!gary@network.UCSD.EDU  
Subject: Quagi antenna polarization question  
To: info-hams@ucsd.edu

In article <C7InuG.6wL@ucdavis.edu> ez006683@othello.ucdavis.edu (Daniel D. Todd)  
writes:

>  
>    Guess this is a misunderstanding on my part. I always thought  
>that a quagi was a multi-element quad that used yagi spacing and element  
>scaling. If this is the case and the parasitics are built so they don't  
>have a tuning stub then they would look the same every 90 degrees of  
>rotation. Obviously I have missed something here, I would be very  
>grateful if someone would explain what I missed. If I ever get a place  
>where I have enough room to play I will build some wire antennas and even  
>RTFM :^). Maybe I'll invest in the antenna handbook next month. Which is  
>best if I can only get one of the books right now?

A quagi is a yagi with a quad for a driven element, and sometimes also  
as the reflector. Other than the odd driven element, it's just your  
ordinary yagi.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		uunet!rsiatl!ke4zv!gary
534 Shannon Way		Guaranteed!		emory!kd4nc!ke4zv!gary
Lawrenceville, GA 30244				

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Date: 24 May 1993 17:38:12 GMT  
From: swrinde!gatech!howland.reston.ans.net!europa.eng.gtefsd.com!slc20!  
wwhitby@network.UCSD.EDU  
Subject: Radio Shack 70cm HT?



To: info-hams@ucsd.edu

>again..if it's a gift. They might not want them to know about it. How about  
>looking up there call sign in the CALL BOOK?

This goes back to my original question about not having a tech. class license and  
wanting to buy that HT; If I don't have a license yet (because I haven't taken the  
exam) how can the clerk at Radio Shack look up my call sign??? Hmmmmmm.....

---

Warren Whitby                      wwhitby@mtgy.gtegsc.com  
GTE Government Systems  
x5459

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Date: Mon, 24 May 1993 17:19:55 GMT  
From: cs.yale.edu!ewing@yale.arpa  
Subject: Radio Shack 70cm HT?  
To: info-hams@ucsd.edu

richard nimtz (rnimtz@kummer.helios.nd.edu) wrote:

: What makes Radio Shack different from any other retailer that sells ham radio  
: gear? As far as I know, there is no requirement that a customer actually  
: have a valid license in order to buy a transmitter. Perhaps as a good faith  
: measure RS will ask to see a license before the purchase, of course, that  
: would cut into their sales.

: Rick Nimtz  
: N9TJG

No difference, except they are prominent, especially in CB. I don't know  
if there should be a "law", but I think RS (and other dealers) have a  
responsibility to tell prospective buyers that it is illegal to transmit  
without a license, and that ham licenses are non-trivial (oh well, let's  
not argue that one :-).

This is particularly important because of the general laissez faire culture  
of CB (some might say "outlaw"). Why should a CBer think that pushing a  
button on a 2m HT is any bigger deal than on his 11m unit?

--

Martin Ewing AA6E                      ewing-martin@yale.edu (ewing@yalevm.bitnet)  
Yale University Science & Engineering Computing Facility 203-432-4243

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Date: Mon, 24 May 1993 16:35:27 GMT  
From: usc!elroy.jpl.nasa.gov!lambda.msfc.nasa.gov!troll1!rich@network.UCSD.EDU  
Subject: REAL Mods for the HTX-202  
To: info-hams@ucsd.edu

In article 93May20233652@larry.larc.nasa.gov, partos@larry.larc.nasa.gov (Dick Partos) writes:

->In article <fred-mckenzie-200593131022@k4dii.ksc.nasa.gov> fred-mckenzie@ksc.nasa.gov (Fred McKenzie) writes:

->

->> Yes beleive it or not I found an UNPUBLISHED mod for the HTX-202

->x

->> Do the following :

->> 1 ) Press the F key ( uper left side above PTT )

->> 2 ) While holding this key in press the L key ( under PTT )

->> 3 ) Thats all ! Enjoy your radio in the dark !

->

->

->That's in the instruction manual! Sorry!

->

-> Dick KE4AZJ

->--

->|-----|  
->| Richard D. Partos Norfolk, VA |  
->| Internet: r.d.partos@larc.nasa.gov |  
->|-----| |

Just looked at my manual. It doesn't mention it. Sorry again!

Thanks for the tip!

--Rich

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"My opinions are my own, and my employer (Boeing Computer Support Services) denies any responsibility for me, all opinions in general, and anything I may say, do, or be otherwise associated with outside of work for them.  
-- Use at your own risk, your mileage may vary, no news is good news."  
("finger" might get my current snail mail addresses, assuming it works)  
E-MAIL REPLY TO: rich@troll1.msfc.nasa.gov PLEASE KEEP IT "G" RATED  
-----  
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Date: 24 May 1993 17:12:41 GMT  
From: sun-barr!news2me.EBay.Sun.COM!west.West.Sun.COM!l1-a!flloyd@decwrl.dec.com  
Subject: Wanted: Kenwood AT-300 Schematic

To: info-hams@ucsd.edu

I'm looking for a copy of the schematic for the Kenwood AT-300 external automatic antenna tuner.

I've been told that it's the same internally as the Icom AH-2, and I'd like to compare them.

I have an AH-2 and I'd like to connect it to my TS-850, and am wondering about the interface.

If anyone has such a schematic, I'd appreciate hearing from them.

Thanks,

-fred

[ Fred Lloyd, AA7BQ	Fred.Lloyd@West.Sun.COM ]
[ Sun Microsystems,	Systems Engineer ]
[ Phoenix, AZ	(602) 224-3517 ]

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Date: 24 May 93 16:11:00 GMT  
From: dog.ee.lbl.gov!overload.lbl.gov!agate!howland.reston.ans.net!  
darwin.sura.net!bogus.sura.net!news-feed-1.peachnet.edu!concert!duke!  
news.duke.edu!ee.egr.duke.edu!jbs@network.UCSD.EDU  
To: info-hams@ucsd.edu

References <JMESSING.25.0@novell.com>, <2sPV4B1w165w@dreaml.wariat.org>,  
<1993May21.185647.16880@news.columbia.edu>ra.net  
Subject : Re: DJ-580t & FT-530 opinions

In article <1993May21.185647.16880@news.columbia.edu> mac20@cunixf.cc.columbia.edu  
(Michael A Cecere) writes:

>  
>the 530 has more sophisticated features then the 580, like automatic  
>power consumption features including transmitting (auto. turn down power when  
>it sees your talking to a strong repeater),

That would be the first feature I'd disable. How the heck can the HT know how  
well the repeater hears in relation to how strong its signal is? Feh.

> better knobs,

Does \*anything\* have knobs as bad as the Alincos'? My '64.5 Mustang had better knobs than my DJ-580.  
Anybody heard of aftermarket knobs that will fit the 580? Neoprene would be nice...

> the numbers don't  
>wear off the keypads,

This is a pain, though they don't wear off at all if you use the case on the HT all the time (mine looks nude to me without it now).

> and what really tickles my fancy, a built in clock,  
>auto on features.. .

I suppose the value of a clock depends on the user.

The Alinco's cheaper. For a lot of hams, you need say no more...

All in all, it's a great radio.

Sort of like a Mazda RX-7 is a great car, but it's not quite a Ferrari.  
Less painful to buy the Mazda, though, and it'll get you where you want to go in reasonable style.

-joe KD4LLV

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You spend the night  
Like you were spending a dime  
- Lyle Lovett

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Date: Mon, 24 May 1993 16:35:08 GMT  
From: usc!venice!gumby.dsd.trw.com!gumby.dsd.TRW.COM!gottloeb@network.UCSD.EDU  
To: info-hams@ucsd.edu

References <tpang.737716131@sfu.ca>, <ZiqT4B6w165w@dogbox.acme.gen.nz>,  
<1993May23.173328.15561@gumby.dsd.trw.com>  
Subject : Re: RFI from ZyXEL modem to 2way radio

In article <1993May23.173328.15561@gumby.dsd.trw.com>, gottloeb@gumby.dsd.trw.com  
(Jeffrey R. Gottloeb) writes:

|> In article <ZiqT4B6w165w@dogbox.acme.gen.nz> dogbowl@dogbox.acme.gen.nz  
(Kennelmeister) writes:

|> >tpang@fraser.sfu.ca (Tsui Ting Debbie Pang) writes:

|> >

|> >> ZyXEL U-1496E is a high-speed external modem, which uses a 68000 uP and  
|> >> 2 DSP chips at 13MHz and 40MHz respectively, inside a plastic case with



```
|> >leads should be shielded, and choked at both ends.  
|> >  
|> >--  
|> >Alan Brown  
|> >dogbowl@dogbox.acme.gen.nz  
|> >  
|>  
|> Jeff Gottloeb  
|> gottloeb@gumby.dsd.trw.com
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End of Info-Hams Digest V93 #634

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